Society Reports.

AMERICAN NEUROLOGICAL ASSOCIATION.

Sixteenth Annual Meeting, held at Philadelphia, June 4th, 5th, and 6th, 1890.

(CONTINUED.)

A CONTRIBUTION FROM BRAIN SURGERY TO THE STUDY OF THE LOCALIZATION OF THE SENSORY CENTRES IN THE CEREBRAL CORTEX.

Dr. P. C. **KNAPP** reported a case in which there had occurred progressive dementia following a bullet-wound received twenty-eight years before. The patient was trephined and a portion of the cortex, most probably in the ascending parietal convolution, was removed. This was followed by inco-ordination, tactile anæsthesia, loss of sensibility to pressure, weight, localization, position, and motion. The sensibility to pain, heat, and cold was normal.

DISCUSSION.

Dr. C. K. **MILLS** thought the case was hardly convincing as a proof of the existence of the localization of sensory centres in the motor region of the cortex. The man had, previous to the operation, a condition of chronic degeneration of his brain. Then half an inçh of variation in localization might have thrown the position of the lesion into what the speaker believed was a part of the sensory area of the cortex. These sensory centres probably surrounded the motor region and the median and lateral aspects of the brain, and this lesion might have involved the postero-lateral region. In a case of Dr. Lloyd's, half to one inch of the motor cortex was removed with some subjacent tissue. They had examined this patient many times with a view of ascertaining the existence or non-existence of tactile anæsthesia. There were present certain peculiar conditions, such as slight motor loss which simulated true tactile anæsthesia. The speaker believed in the distinction between the sensory and motor areas. He recognized, however, that we had few cases of reports of motor loss following lesions in the areas for sensation; the probable explanation being that there was almost instantaneous taking up of the function by the other hemisphere.

Dr. **GRAY** said it was extremely difficult to be certain as to the existence of a slight degree of tactile anæsthesia. The æsthesiometer was an unreliable instrument, and its use was the more difficult when the patient was an uneducated person. It was difficult to make any fine diagnosis in the course of such a surgical operation. The question of the overlapping of the sensory and motor areas was at present one of mere speculation. At any rate, he did not believe that they were so precise in their outline that they could be located during surgical operations.

Dr. C. L. DANA said that Dr. Knapp had presented the positive and Dr. Mills the negative side of this question. It was possible to cut away the cortex and have no anæsthesia. He could not find any other than the motor area for tactile sensation.

Dr. KNAPP admitted the uncertainty as to the location of the lesion. He knew also that it was not easy to detect the minor forms of tactile anæsthesia; but in this case it had been marked, both before the operation and for some time after it.

ON CASES OF POSTERO-LATERAL SCLEROSIS, WITH SPECIAL REFERENCE TO THE PATHOLOGY OF THE DISEASE.

Dr. PUTNAM referred to a series of eight cases of similar character, presenting the symptoms of "combined sclerosis" of the spinal cord, which he had seen during the past few years, and reported four of them, in which he had examined the cord microscopically.

All the cases of the series, though differing in some respects, resembled each other as follows: All the patients were past middle life, and all were either anæmic or in a state of poor nutrition. The symptoms in all consisted in both motor and sensory disorders in all four limbs, sometimes associated with inco-ordination, sometimes not. The upper knee-jerk was exaggerated in all but two or three; in those it was absent. Tabetic pains were present in one case only. Anatomically, sclerosis was found in the posterior and lateral columns, varying in exact position. In almost every case the posterior change seemed the older and most intense. Besides the "typical" sclerosis, there was evidence of a more recent process, characterized by granule-cell formation and the breaking down of the nerve-tubes so as to form circular or oval spaces. This new process was developed on the borders of the older change. The gray matter of the cord was more or less affected, and the nerve-roots in about the same degree. The cases had all run a rapid course, terminating, after one to four years, in death, preceded by paraplegia due to non-inflammatory softening. Next to inherent structural weakness, as an etiological factor, came impaired nutrition and toxic influences. The importance was pointed out of recognizing and attempting to meet the partial courses of the disease, of which several might be present at once.

As special stigmata of degeneracy in these four cases, the writer referred to the mental condition and family history of several of the patients, to the remarkably abnormal shape of the cord in one, the small size of the dorsal gray matter in another, and the presence of a second central canal in a third.

DISCUSSION.

Dr. S. G. WEBBER cited the case of a young girl who, from excessive walking, had developed decided symptoms of lateral sclerosis. There had been no lead; for arsenic no examination was made. Gradually this patient had recovered the use of her limbs.

Dr. PUTNAM, replying to Dr. Dercum, said there had been no serious involvement of the internal organs in any of these cases and no typical Bright symptoms. In one case there had been casts in the urine. The vessels of the spinal cord were all thickened, and there was weak heart, but no valvular lesion. These patients were so largely women, that he could not but assume the existence of some lesion from impaired nutrition and constitutional taint.

ON INGRAVESCENT APOPLEXY.

Dr. C. L. DANA read a paper with this title. He said that there were three sets of intra-cranial blood-vessels—those in the dura, those in the pia mater, and those in the substance of the brain. We had, correspondingly, three types of intra-cranial hemorrhage. The central hemorrhages were far the most common, and presented a tolerably uniform clinical type. There was one form, however, which seemed to have escaped critical attention, though it could not be excessively rare. In 1876 Dr. Broadbent had reported six cases of what he termed "ingravescent apoplexy." In 1889 M. P. Puesch, of Montpellier, had also reported a case of the same character.

The writer had met two cases presenting the general clinical characters of ingravescent apoplexy, but was able to make an autopsy upon only one, of which the history was as follows: A woman was brought to the hospital on May 1st without any history. She was in a stupid condition, but not unconscious, and she was at first thought to be intoxicated. Examination showed, however, some hemianalgesia of the left side and slight hemiplegia of the same side. The right pupil was slightly contracted, temperature normal, pulse tense. Next day the patient's mind was clearer; she answered questions, and recognized those about her. But the hemiplegia was very much worse, and the analgesia no better. Toward night she became more stupid, and finally comatose; œdema of the lungs developed. No contractures of the paralyzed side were noted. The temperature rose, and the patient died next day, May 3d.

At the autopsy the brain was found congested. Pressure over the supramarginal gyrus showed that there was a softened place beneath it. The brain was placed in boroglycerine and alcohol, and opened later by vertical sections. These showed a clot in the lateral ventricle, and some blood in the third ventricle. Beneath the supramarginal gyrus was a large hemorrhagic focus about an inch and a half in diameter. This extended forward and downward, cleaving the external capsule. The hemorrhage had finally extended downward and inward and broken into the lateral ventricle.

Puesch had attempted, on the slender basis of seven cases, to erect "ingravescent" or (as he called it) "progressive" apoplexy into a distinct type. This seemed to the author to be somewhat premature. The history of his case was not exactly like those of Broadbent's in respect to retention of consciousness, and the hemiplegia was relatively less marked. Yet, anatomically, it was one of the "cleaving" hemorrhages due to rupture of a posterior branch of a lenticular artery, and running the same course as was described by Broadbent. The hemianæsthesia seemed to the author to be a very distinctive point. Practically, the question came up as to whether, in such cases, trephining would be justifiable. In general, the idea of trephining for non-traumatic hemorrhage was not to be entertained at all. But in ingravescent apoplexy it deserved consideration, because here the hemorrhage was accessible, and because, unless some relief was given, it would surely break into the lateral ventricle and kill the patient. In all the reported cases, also, the patients were not old, were not syphilitic, and presumably had not extensively diseased arteries.

In reaching hemorrhages in these cases, the best place to trephine would be a little below and in front of the parietal eminence. The surgeon should then explore downward and forward, care being taken not to injure the terminal branches of the Sylvian artery, which were in this neighborhood. In cases of "ingravescent" apoplexy, surgical interference, if undertaken, should be before the blood broke into the ventricles. This could be told by the sudden increase in the severity of the symptoms, and, if the blood was poured in rapidly, by contractures on the paralyzed side. The temperature changes were believed to be the same in the ingravescent as in ordinary apoplexy. The author trusted that the report of his case might excite the interest of others, and call attention to this apparently distinctive and fatal form of cerebral hemorrhage.

DISCUSSION.

Dr. MILLS had seen a number of cases. The clinical features were peculiar. Patients would be brought in in a condition of apparently incomplete unconsciousness, having the appearance of being conscious which was not real. The result of his experiments as to the best method for operative interference in these cases led him to think that the trephining, if done at all, should be several inches back from the temporal lobe along the junction of the second and third temporal convolutions. He believed that in some cases the blood when reached would not be found fluid. He thought the hemorrhagic focus might be reached by making an opening, enlarging it with some flat instrument and gradually removing the clot. One case of trephining for ventricular hemorrhage had been done. It seemed absurd, yet certainly cases of intra-ventricular hemorrhage had recovered independent of the question of trephining.

Dr. W. SINKLER said Dr. Dana had referred to the question of temperature. The speaker had recently had a patient die from enormous hemorrhage into the ventricle, and the temperature before death had been 108°, and half an hour before death 109⅗°.

Dr. WEBBER questioned the utility of trephining in these cases. In most the history was rupture. The force of the blood tore up the brain-substance, a considerable area of which was destroyed and infiltrated with blood. The hemorrhage continued, and then there was rupture into the ventricles. Opening the brain in such a case was apt to cause a continuance of the bleeding.

Dr. MILLS said the advantage of trephining was that it gave the patient a lease of one or two weeks, as the breaking into the ventricles did not take place until late. The bleeding stopped, and began again. By trephining and binding the bleeding point there was a chance of controlling it.

Dr. DANA said that trephining was purely empirical. He could not say whether it was good or not. He could not see any *a priori* reason against it because we changed the condition of circulation in the brain, and surgeons might devise measures by which the hemorrhage might be stopped.

Dr. WEIR had made some experiments as to the site for trephining, described by Dr. Mills, and had come to the conclusion that it would be better in front of the fissure of Rolando.

HYPERALIMENTATION IN ACUTE DELIRIUM.

Dr. G. Guicciardi (Rivista sperimentale di Freniatria, xv., 465). Guicciardi has obtained in the treatment of acute delirium less unfavorable results than one usually observes in this disease; he only lost, out of eleven cases, four by death, while five completely recovered, and two became weak-minded. The treatment adopted by him consisted in isolation, removal of all sources of irritation, protracted luke-warm baths, with the simultaneous application of ice-bladders to the head and a few leeches to the mastoid process, as well as in revulsion to the intestine and ergotine injections. But he places a still greater emphasis upon the richest possible feeding, and indeed by methodic feeding, by means of the sound, every three to four hours with 350 c. cm. of the most nourishing fluid food.

MASSAGE IN MENTAL DISEASES.

Dr. Giuseppe Guicciardi (Archivio italiano per le malattie nervose, etc., xxvi., p. 393). Guicciardi has for some time employed massage in the treatment of mental diseases, and in general he is satisfied with the results. He has especially been successful in states of general depression, in stupor, and in exhaustive psychoses; the general condition improved in all cases and usually also the psychic relation. He recommends "general massage" of the body, and reserved a more special local massage for those cases, as hysteria, neurasthenia, etc., which are accompanied by disturbances of sensibility, neuralgias, contractures, displacements of the uterus, obstipation, etc. The massage should be continued long after the disease has disappeared; other methods, as hydrotherapy and electrotherapy, should by no means be neglected.